

REMARKS

Claims 1-26 are pending in the application. Claims 1-6, 13-20 and 24-26 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Claims 7-12 and the newly added claims 21-23 are allowed. Applicant submits the following in traversal.

Claim Rejections Under 35 U.S.C. § 101

The Examiner rejects claims 1-6, 13-20 and 24-26 under § 101 because the Examiner asserts that the claims are directed to non-statutory subject matter. The Examiner maintains the previous rejection of those claims because the Examiner alleges that the Applicant “hasn’t pointed out how/why the claim produces a useful, concrete, and tangible result.” Office Action, page 2. The Examiner also states that:

If the claim as a whole is reasonably interpreted as just solving a mathematical algorithm rather than reciting a practical application of the algorithm which produces a **useful, concrete and tangible result**, then it would be non-statutory. It would appear to be concrete and tangible in the context of the claim; however, the useful result appears lacking.

Office Action, page 2 (bolded and underlined emphases in original).

Applicant submits that claim claims 1-6, 13-20 and 24-26 comply with § 101.

For example, claim 1 recites:

A high-speed inverse discrete cosine transformation (IDCT) method used in a decoding of compressed image data of an image, the method comprising:

(a) searching all elements of a discrete cosine transformation (DCT) matrix for elements having values other than 0, in a predetermined order, when a total number of elements having values other than 0 is not greater than a predetermined critical value;

(b) performing a two-dimensional (2D) IDCT on the elements having values other than 0 searched for in (a);

(c) performing 2D IDCT on the DCT matrix when the total number of elements having values other than 0 is greater than the predetermined critical value; and

(d) generating a reconstructed matrix of pixels of the image.

Applicant submits that at least the generating a reconstructed matrix of pixels of the image provides the useful result in claim 1.

Furthermore, the reconstructed matrix of pixels of the image provides a practical application of the invention.

The Interim Guidelines for Examination of Patent Application for Patent Subject Matter Eligibility, Official Gazette, 22 November 2005, subsection A states (underlined emphasis added):

"The claimed invention as a whole must be useful and accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." *State Street*, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of 'real world' value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96 (1966); *In re Fisher*, 421 F.3d 1365, 76 USPQ2d 1225 (Fed. Cir. 2005); *In re Ziegler*, 992 F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

The applicant is in the best position to explain why an invention is believed useful. Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful. Such a statement will usually explain the purpose of the invention or how the invention may be used (e.g., a compound is believed to be useful in the treatment of a particular disorder). Regardless of the form of statement of utility, it must enable one ordinary skilled in the art to understand why the applicant believes the claimed invention is useful.

One aspect of the present invention relates to a high-speed inverse discrete cosine transformation of compressed digital data, such as image signals, in an environment that supports multimedia applications. Conventional data compression techniques have used discrete cosine transformation (DCT). However, conventional inverse DCT algorithms require a considerable

number of computations. ¶ [10]. In the current mobile environment, decoders are restricted in terms of size and power consumption, so there is a need to reduce the amount of computations necessary for performing inverse DCT (IDCT) in decoders. ¶ [10].

Applicant submits that an exemplary embodiment of the invention provides the necessary indication of the practical application of the claimed invention. Paragraph [48] of the specification explains that:

. . . it is possible to design a stable video decoder having enhanced performance or a compact-sized mobile video decoder having reduced power consumption by dramatically reducing the number of computations performed by an IDCT module, which amounts to nearly 25 ~ 30% of the total number of computations performed in a video decoder.

As exemplary embodiments of the invention, the practical applications of the invention include “a stable video decoder having enhanced performance” and “a compact-sized mobile video decoder having reduced power consumption.”

Therefore, claim 1 should be patentable because the subject matter of the invention is a practical application of an idea that is eligible for patent protection.

Claims 2-6, 13-20 and 24-26 are patentable for reasons similar to those submitted for claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,

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